December 11, 2003

Johnny Pappas, Sr. Environmental Engineer Plateau Mining Corporation P.O. Box 30 Helper, Utah 84526-0030

Re: <u>2003 Midterm Permit Review, Plateau Mining Corporation, Willow Creek</u> Mine, C/007/0038, Task ID #1751, Outgoing File

Dear Mr. Pappas:

The above-referenced amendment has been reviewed. There are deficiencies that must be adequately addressed prior to approval. A copy of our Technical Analysis is enclosed for your information. In order for us to continue to process your application, please respond to these deficiencies by January 12, 2004.

If you have any questions, please call me at (801) 538-5325 or Dana Dean at (801) 538-5320.

Sincerely,

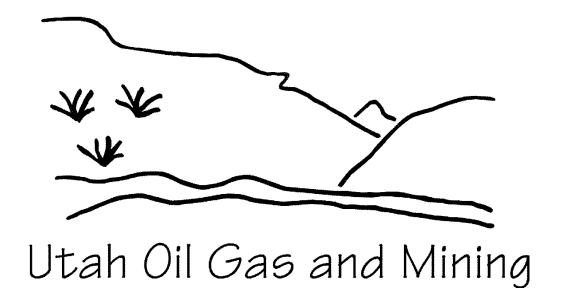
Daron R. Haddock Permit Supervisor

an Enclosure

cc: Price Field Office

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State of Utah



Coal Regulatory Program

Willow Creek Mine 2003 Midterm Permit Review C/007/0038, Task ID #1751 Technical Analysis December 8, 2003

TABLE OF CONTENTS

INTRODUCTION	3
GENERAL CONTENTS	
IDENTIFICATION OF INTERESTS	5
SPECIAL CONDITIONS OR STIPULATIONS TO THE PERMIT APPROVAL	5
VIOLATION INFORMATION	6
OPERATION PLAN	7
FISH AND WILDLIFE INFORMATION	7
Wetlands and Habitats of Unusually High Value for Fish and Wildlife	7
HYDROLOGIC INFORMATION	9
General	9
Sediment Control Measures	9
ASCA #1	10
ASCA #3	11
ASCA #4	11
ASCA #5	11
Gravel Canyon	12
Crandall Canyon Topsoil Pile #1	13
Castle Gate Rail Loading Facility	13
RECLAMATION PLAN	15
HYDROLOGIC INFORMATION	15
General	
Hydrologic Reclamation Plan	
BONDING AND INSURANCE REQUIREMENTS	16
Determination of Bond Amount	16

TABLE OF CONTENTS

TECHNICAL ANALYSIS

TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at http://ogm.utah.gov/coal

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference which describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

TECHNICAL ANALYSIS

INTRODUCTION

INTRODUCTION

The Division initiated a midterm review of the Willow Creek Mine Permit via correspondence with Mr. Johnny Pappas of the Plateau Mining Corporation on October 16. The letter outlined the following elements as those selected for review:

- "1. An AVS check to ensure that Ownership and Control information is current and correct.
- 2. A review to ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program, which have occurred subsequent to permit approval (One area of emphasis is to ensure compliance with the U. S. Fish and Wildlife Windy Gap Process).
- 3. A review of the plan to ensure that the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes are appropriately incorporated into the plan document.
- 4. A review of the applicable portions of the permit to ensure that the plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
- 5. A review of the bond to ensure that it is in order and that the cost estimate is accurate and is escalated to the appropriate year dollars.
- 6. The Division may conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness of operational, reclamation, and contemporaneous reclamation practices."

The Division conducted site visits on November 17 and 20.

Page 4 C/007/0038 Task ID #1751 December 8, 2003

INTRODUCTION

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

The Division approved new ownership and control information submitted by the Permittee on May 27. There have been no changes in the corporate structure for Plateau Mining Company or RAG American Coal Company since that time.

Findings:

The Permittee has complied with the Identification of Interests requirements of the regulations.

SPECIAL CONDITIONS OR STIPULATIONS TO THE PERMIT APPROVAL

Analysis:

The Division issued the current permit on April 24, 2001. It expires April 24, 2006. There is only one condition attached to the permit; that the Permittee submit water quality data for the Willow Creek Mine, beginning with the second quarter of 2001, in an electronic format through the Electronic Data Input web site, http://linux1.ogm.utah.gov/cgi-bin/appx-ogm.cgi. The Permittee has been fulfilling this requirement for at least the last two years. They submitted the third quarter of 2003 surface and ground water monitoring information on October 17, 2003.

Findings:

The Permittee has complied with the Special Conditions or Stipulations to the Permit Approval requirements of the regulations.

GENERAL CONTENTS

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Analysis:

There are no Division Orders pending for the Willow Creek Mine permit area.

The Division issued a Division Order on September 9, 2002. The Order required the Permittee to submit a plan to seal and permanently abandon the Crandall Canyon Shafts. The plan had to provide for protection of the coal resource that the Permittee planned to abandon, as well as the protection of other resources, including groundwater and methane. It also required that the Permittee post a bond to cover the permanent sealing and long-term liabilities of the shafts. The Division withdrew the Order on October 8, 2002 because the Permittee protested that it did not have sufficient time to determine if it could adequately respond within the time constraints of the order because the issue was complex and a number of agencies were involved. The Division agreed that the federal agencies involved in the reclamation approval, and the extent of the technical issues would make it difficult for Plateau to decide how to respond before the 30 days limit for an appeal. The Division did not base the withdrawal of the Order on a change in the findings of deficiencies and did not waive or reduce the urgency of addressing the issues. The Permittee subsequently addressed the concerns contained in the Division Order and completed backfilling activities of the #1 and #2 airshafts in Crandall Canyon in September 2003. Since the backfill material continues to settle in the #1 shaft, both shafts are fenced-off have danger signs posted.

There are no Notices of Violation pending for the Willow Creek Mine.

The last permit amendment that required incorporation into the mining and reclamation plan was LF03C, a legal and financial update of Chapter 1, Ownership and Control information update, approved on May 27, 2003. All other submittals either are pending, or are relative to the submittal of water monitoring information.

Findings:

The Permittee has complied with the Violation Information requirements of the regulations.

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

The Colorado River endangered fish species are Colorado squawfish (a.k.a. Colorado pikeminnow), humpback chub, bonytail chub, and razorback sucker. To protect these species, consumption of water within the Colorado river drainage system is tracked by the U.S. Fish and Wildlife Service as part of their 1987 Recovery Implementation Program. Water users may be required to mitigate if their overall water consumption is greater than 100 acre-feet per year.

The Division issued the initial Willow Creek Mine permit in April 1995. Section 4.3.2.2 of the MRP "Potential Effects on Aquatic and Riparian Resources (includes sensitive species)" page 4.3-7 estimates the river water usage during active mining at 730 acre-feet annually. Based on this figure, the Permittee paid a "depletion fee" to the U.S. Fish and Wildlife Service as required by the USFWS 1987 Recovery Implementation Program (memorandum to Mr. Gregory K. Reed, reclamation and Enforcement, OSM, from Utah Field Supervisor, USFWS, SLC, dated October 22, 1996). The Division reviewed this memorandum during a field visit on November 17.

During the November 17 site visit the Division also discussed the effects of temporary cessation and recent reclamation on water usage with the Permittee.

The Willow Creek Mine has been in temporary cessation since the summer of 2000 after underground mine fires raged in the D1, D2, and D3 panels of the D seam. Current measurements of river water usage are about 2.0 acre-feet annually. The Permittee used most of the river water consumed between January 3, 2003 to November 18, 2003 (647,760 gallons) for dust control in the Castle Gate and Crandall Canyon areas (personal communication with Mr. Pappas on 11/17/03). Note: 1 acre-foot = 326,000 gallons

The MRP indicates that mine workings are confined to the D-seam and are not likely to create an impact to the hydrologic balance, as the D seam does not underlie any surface or ground water monitoring locations (Section 4.7.2.3). However, during the development of the D seam's Northeast Mains, a large artesian inflow originated from abandoned surface well MC-

090. During the inflow, the Willow Creek mine discharged approximately 700 gpm to the Price River and enlarged Pond #1 to hold some of the outflow. The Permittee pumped a total of 2 billion gallons out of the mine.

The underground flood prompted research into the possible alternatives for disposal of inmine water (Section 4.7.2.5). The results of this research are summarized in a paper entitled, "Potential for Water Storage in Abandoned Mine Workings in the Castlegate Area, Carbon Co. Utah," dated June 15, 1999. The Permittee provided this 1999 report as part of the 2002 Annual Report filed with the Division. The Executive Summary of this report indicates that between 0.720 and 2.490 billion gallons of water could be stored underground west of State Hwy 6. However, the Permittee has suspended all work on this topic since mining cessation. **Note: This report provides maps of all the abandoned underground workings in the Castle gate area.** The Permittee has this information available electronically.

The Permittee discusses in-mine groundwater accumulation in Section 4.7.2.2 of the MRP. Exhibit 10 "Hydrologic Conditions at the Willow Creek Mine at Mine Closure," presents the projections for postmining hydrogeologic conditions. Exhibit 10 describes an inflow to the D Seam of 100 gpm that will reduce to 25 gpm overtime as the abandoned workings fill up.

The Permittee describes the drainage and sediment control system for the mine in Section 4.5.2.3 of the MRP. The Permittee describes the preparation plant and the 1,765,695-gallon thickener pond in Section 4.7.2.2 of the MRP.

Surface storage of water includes the 350,000-gallon water storage tank and five remaining sediment ponds: Ponds 1, 2, 11, 12A&2B, and 13 (ponds 14 and 15 were removed with the Crandall Canyon reclamation in the Fall of 2003). The Division observed these ponds during the November 17 site visit. The water level in all of the ponds was well below the discharge, but all the ponds contained some water. Exhibit 13 describes the pond designs. The MRP states that these designs have the "minimal acceptable detention time, such that delays to receiving streams are limited" (Section 4.7.2.1).

The water-monitoring network consists of 14 springs, 7 ground water wells, and 10 stream locations. The Permittee shows the monitoring locations on the Regional Hydrology and Monitoring Station location Map 15 and lists them in Table 4.7-1. Currently, The Permittee monitors six surface sites and five ponds.

The Division also observed the riparian vegetation, buffer zone and sediment control measures in place along Willow Creek during the November 17 site visit (Exhibit 14 and Section 4.7.1.4). The water was running clear and the vegetation was well established.

Four years after payment of the "depletion fee," the Permittee has reduced water consumption to well below that entitled by water rights held. The Permittee has complied with R645-301-322 and R645-301-333.

Findings:

The Permittee has complied with the Fish and Wildlife Information requirements of the regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

The Mining and Reclamation Plan contains information pertaining to the control of sediments in the permit area and to prevent sediment from leaving the permit area. The plan employs a combination of Best Management Practices (BMPs) to control runoff and sediment. These include berms, ditches, culverts, several sedimentation ponds, silt fences, and straw bales. The plan employs the best technology currently available to control sediments and to prevent the mine from contributing to suspended solids in nearby streams. All water leaving the permit area is sampled and reported to the Division of Water Quality and must meet National Pollutant Discharge Elimination System standards.

Sediment Control Measures

Alternative sediment control areas (ASCAS), which utilize "best technology currently available" (BTCA) are described below, separated into operational or reclamation status.

Operational Status

1) ASCA #1; where access to the mine facilities from State Highway 191 is located.

- 2) ASCA #3; the topsoil pile for the main facilities area. This will be disturbed as reclamation proceeds.
- 3) ASCA's #4 and #5; the entrance and exit to the long tunnel (conveyor access through the mountain to the Castle Gate side). The Permittee has removed the conveyors, but has not begun the sealing and/or backfilling of the tunnels.
- 4) ASCA #6; the pad area of the Barn Canyon ventilation shaft. The Permittee never constructed this pad, this document will not address this ASCA any further.

The following areas associated with the Willow Creek/ Castle Gate disturbed area do not have ASCA designations, but utilize best technology methods to treat runoff:

- a) The disturbed area on the west side of the Price River, including the rail car loading facility.
- b) The topsoil pile in Gravel Canyon, located on the west side of U.S. Highway 6 and 50.
- c) Topsoil pile #1, located on the south side of the Crandall Canyon access road, adjacent to the gate.

Reclamation Status

- 1) The topsoil pile in Crandall Canyon, (previously designated as pile #2, in the Castle gate MRP). The Permittee used this to reclaim the Crandall Canyon surface facilities area.
- 2) ASCA #2; the abandoned mines reclamation area due east of the main topsoil stockpile. It is doubtful that the Permittee will disturb ASCA #2 as reclamation proceeds.
- The Crandall Canyon Surface Facilities Area; the Permittee completed reclamation of this area in November 2003.

ASCA #1

ASCA #1 is located at the entrance to the mine facilities, inside the gate that bars unauthorized access from State Highway 191. As described in the Willow Creek mining and

reclamation plan (Exhibit 13, page 26), "ASCA #1 is the portion of the mine access road which does not drain to sediment pond 001A due to the crown in the road. Runoff from the area flows into ditch UD-12 or flows along the berm a short distance before there is a break in the berm at the lowest elevation (See Map 23C). At the break in the berm, a silt fence has been installed to treat the runoff before it reaches UD-13, which flows to Willow Creek. No disturbed runoff from this area will reach Willow Creek without being treated by the silt fence." The road is paved with asphalt material. Any sediment transported to the silt fence would come from areas such as the in-slopes of berms, or ditches. The Permittee and the Division inspect the area regularly. At the November 20 site visit the silt fence was in good repair, and capable of functioning as designed. There was no evidence of sediment reporting off the disturbed area.

ASCA #3

ASCA#3 is the main topsoil storage pile for soils recovered during the construction of the Willow Creek Mine facilities. Vegetation and containment berms have controlled sediment in this area for several years. Berms located on the northeast and southwest corners retain runoff within the stockpile area. Appendix "F" of the MRP contains design calculations for the two retention basin areas. The design storm utilized to calculate the runoff for the areas is the 10 year 24 hour event, (See Exhibit 13, page 26, EX 13-26 for a detailed explanation of the area).

ASCA #4

ASCA #4 is the area near the entrance to the "long" tunnel, which provided the conveyor route through the mountain during coal production. This ASCA controls runoff from Watershed 24, 0.34 acres in size. The 10-year, 24-hour design volume is 926 cubic feet, which reports to a catch basin with a silt fence at the outflow. As indicated in the MRP, the basin itself does not have a treatment volume sufficient to treat the design storm runoff. The basin and the berms surrounding it are well vegetated. The Permittee has armored the outflow with riprap. There is no evidence of any sediment reporting from this area to the undisturbed drainage.

ASCA #5

ASCA #5 is the area adjacent to the outlet of the "long" tunnel. The area involved is approximately 900 square feet, and the runoff volume from the area reports to ditch UD-23A; from there, the flow is treated by a silt fence in ditch 23B. The flow volume then reports to a shallow depression, which existed before the disturbance created by the mine development. The depression is capable of holding approximately 7,000 cubic feet of runoff, and treats any volume by its inherent vegetation, and a silt fence at the outlet. The outflow from the depression then reports to ditch UD-23C, which takes it off the permit area. There is no evidence of sediment reporting from the disturbed area off the permit.

Gravel Canyon

The Gravel Canyon topsoil storage pile is another area utilizing "best technology currently available" to treat any intercepted precipitation, and preserve the soil resource. The area lies 800 feet west of the Willow Creek preparation plant facilities on the west side of U.S. Highway 50 and 6. The topsoil pile contains approximately 97,000 cubic yards of material. The Permittee created the pile in 1983, during the construction of the Crandall Canyon facilities. The Permittee will use this soil for the reclamation of the preparation plant area, which is in-progress. The operational runoff volumes which were used for this area of the Castle Gate property are described in Chapter 7 of Exhibit 19, Section 7.2-2(2)A, **Operational Phase**, page 7-26 of the MRP. As noted, the 10-year 6-hour event (1.4 inches rainfall, see **TABLE 7-7**) is the design storm utilized to calculate runoff volumes for the area.

As noted in Exhibit 19, Chapter 7, TABLE 7-8, (page 7-76) of the MRP, the Gravel Canyon area comprises 5.5 acres, and utilizes vegetation as the alternative method of sediment control for the operational phase. See EXHIBIT 3.6-2 for a map depicting the OPERATIONS CONTOUR MAP, and the EXISTING DRAINAGE STRUCTURES MAP. There is no evidence of sediment reporting from the topsoil pile.

The Permittee plans to begin backfilling and grading activities in the Castle Gate preparation plant area at the beginning of 2004 and the recovery of topsoil from the Gravel Canyon area will begin later that year. At that time, reclamation phase sediment controls will be implemented (See section 7.2-2(5) Reclamation Structures, page 7-41). See EXHIBIT 3.6-3, Postmining Reclamation Topography and Treatment Map. This exhibit depicts the reshaping of the Canyon after removal of the 97,000 yards of soil material. The Permittee will install a channel in the center of the Canyon. The Legend states that "reaches of the stream channel or ditches protected by silt fences". "Silt fence segments shall be installed parallel to contours, as described in section 3.6-4 (3). The reshaped area will have sediment control implemented through seeding, and mulching. The Permittee will most likely implement surface roughening as part of the reclamation activities, to enhance the sediment control.

Volume 11, **Section 3.6, APPENDIX 3.6C** of the Willow Creek Mine, mining and reclamation plan contains alternative sediment control calculations for the Gravel Canyon area. The design storm for the reclaimed area was the 10-year 6-hour event (1.8 inches rainfall). The calculations used drainage areas of 2.6 acres (north side of reclamation) and 2.4 acres (south side of reclamation). Page 11 of 19 contains the sediment yield calculations for the Gravel Canyon area.

Page 3.6C-3 of Appendix 3.6C (Volume 11, EXHIBIT 19) says that "a calculation of the adequacy of a single layer (silt) fence system was performed. The results indicate that

the spacing of the fences will have to vary depending on location and the grade of the reclaimed ground surface adjacent to the channel. However, a single layer system will be sufficient. In all cases, the silt fences shall be constructed in accordance with Figures 3.6-3 and 3.6-4 with the fences parallel to the contours. Additionally, the fences should be constructed with sufficient projected overlap, and the length of the fence segments should correspond to the spacing and orientation of those segments along the channel." Page 3.6-9 also indicates that the Permittee will use mechanical treatment of runoff, provided by surface roughening in the area, as well as surface protection, (mulching). The sediment control measures that the Permittee will implement in the Gravel Canyon area, after the recovery of the soils, appear adequate to minimize additional contributions of sediment to the Price River drainage.

Crandall Canyon Topsoil Pile #1

This topsoil pile is on the SE corner of the Canyon access road, adjacent to Highways 50 and 6. Exhibit 20, Crandall Canyon, Exhibit 3.7-7F depicts this pile. The material stored here (1,210 yards, see TABLE 3.7-10, EXHIBIT 20, Crandall Canyon) came from the development of the newer Canyon access road. This road will remain in place as part of the approved post mining land use. Therefore, the Permittee may consider this soil volume to be a surplus. The pile has been in place for approximately twenty years and is vegetated, although noxious weeds are present.

If the Permittee has a topsoil volume shortage, the use of the #1 topsoil pile may be necessary. The Permittee should confirm that the method of sediment control which would be implemented here (for reclamation of the pad underneath the topsoil pile) would be similar to that used in the Crandall Canyon surface facilities area. The sediment control calculations in Appendix 3.7-7Q confirm that if the same techniques were used, it would provide adequate sediment control in this area.

Exhibit 19, Chapter 7, Hydrology, Castle Gate Mine, page 7-76 refers to two topsoil piles, (No. 1 and No. 2) comprising 1 acre of total area, utilizing vegetation as the method of alternative sediment control. The MRP refers to Exhibit 3.7-5C, which cannot be located in the current MRP.

Castle Gate Rail Loading Facility

This area is located on the west side of the Price River and east of the Denver and Rio Grande Western railroad tracks. The Division originally permitted the area as a "small area exemption" (SAE) for sediment control/runoff evaluations. This information is found in the Willow Creek Mine MRP, (See Volume 11, EXHIBIT 19, Section 3.8, UNIT TRAIN

LOADOUT. The sediment control evaluation in this section has been superseded, and should be removed.

In April of 1998, the Division approved ACT/007/038-AM97F, which changed the method of sediment control in the rail loadout area from a small area exemption, to an "alternate sediment control area", (ASCA). The Permittee submitted a design for, and upon approval implemented a small catch basin on the south end of the expanded disturbed area at the loadout. The design information for this catch basin is contained in Volume 10, EXHIBIT 19, Chapter 3, Section 3.4, APPENDIX 3.4G. As indicated on Page 1 of the design calculations, (Sediment Trap #1) is designed to retain runoff from a two year 24 hour design event. The Permittee designed the trap overflow to safely pass the peak flow resulting from the 10-year 6-hour storm. The disturbed area involved is 0.53 acres (CGWS-21); the Permittee used a rainfall amount of 0.46 inches to calculate a runoff volume of 880 cubic feet.

The Division observed a silt fence braced with wire screen providing additional treatment of the overflow volume during the site visit. This fence is located at the basin/spillway interface. The spillway utilizes vegetation throughout its length before the flow volume reports to the Price River.

Findings:

R645-301-742, et al., The Permittee must state what type of sediment control measures they will implement during reclamation of the pad under topsoil pile #1 if they need to use that topsoil pile.

RECLAMATION PLAN

RECLAMATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-724, -301-725, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-751, -301-751, -301-760, -301-761.

Analysis:

General

The Mining and Reclamation Plan contains information pertaining to the control of sediments in the permit area and to prevent sediment from leaving the permit area. The plan employs a combination of Best Management Practices (BMPs) to control runoff and sediment. These include berms, ditches, culverts, several sedimentation ponds, silt fences, and straw bales. The plan employs the best technology currently available to control sediments and to prevent the mine from contributing to suspended solids in nearby streams. All water leaving the permit area is sampled and reported to the Division of Water Quality and must meet National Pollutant Discharge Elimination System standards.

Hydrologic Reclamation Plan

The Permittee has reclaimed the following areas in the Willow Creek Mine permit area. They must meet effluent criteria in order to be in compliance.

Crandall Canyon Topsoil Pile #2

A soil volume of 6,680 cubic yards previously existed at this location (three-tenths of a mile up Canyon of the gate located adjacent to U.S. Highway 50 and 6). The Permittee used it in the reclamation of the Crandall Canyon surface facilities. The Permittee roughened, seed and mulched the area, including the access road. The Division feels that the Permittee can apply the same sediment yield calculations contained in Appendix 3.7-7Q to this area, since the Permittee has used the same roughening, seeding, and mulching techniques. There is no evidence of sediment leaving this area.

ASCA #2

ASCA#2 "is a previously disturbed area **that has been reclaimed** by the Abandoned Mine Reclamation program of the Division. They regraded and revegetated the area. They also

RECLAMATION PLAN

placed numerous silt fences along the perimeter of this area, to treat any runoff reporting from it. The Division observed on November 20 that vegetation is the primary means of sediment control. There is no evidence of sediment leaving this area.

Crandall Canyon Surface Facilities Area

The Permittee completed reclamation of the Crandall Canyon Surface Facilities area in November 2003. The area previously utilized two sediment ponds to treat the disturbed runoff before it entered Crandall Creek. The Permittee reclaimed both ponds because they would have been above the final surface configuration of the area. Sediment control for the reclaimed area is in EXHIBIT 20, Section 3.7, Crandall Canyon, Chapter 3, page 54. This refers to the sediment yield calculations using the proposed vegetative cover, mechanical treatment, and mulching. The Permittee has applied these techniques at the Crandall Canyon site, (See **Appendix 3.7-7Q**). There is no evidence of sediment leaving this area.

Findings:

The Permittee has complied with the Hydrologic Reclamation requirements of the regulations.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The current bond amount is \$7,866,000 in 2004 dollars. The current reclamation estimate is \$7,512,000 in 2004 dollars. Therefore, the bond amount is sufficient to ensure reclamation.

The Permittee is reclaiming the site. Most of the reclamation work involves demolition. This reduces the amount that the Division would have to spend to reclaim the site in the event of forfeiture.

The Division is now escalating bonds from midterm to midterm. Because the Permittee is now reclaiming the site, the Division will not escalate the bond until the permit renewal.

RECLAMATION PLAN

Findings:

The Permittee has complied with the Bonding and Insurance requirements of the regulations.

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